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| APPLICATION NO | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO | CONFIRMATION NO |
|----------------|-------------|----------------------|--------------------|-----------------|
| 09 126,330 | 07 31 1998 | GARY D SHARP | CLNK-1P6 | 8797 |

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EXAMINER

PARKER, KENNETH

ART UNIT PAPER NUMBER

2871

DATE MAILED: 02 14 2003

Please find below and or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/126,330

Applicant(s)

SHARP, GARY D

Examiner

Kenneth A Parker

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 17-48 and 78-81 is/are allowed.
- 6) ☐ Claim(s) 1-5, 58-64, 67-73, 90-93 and 98-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 1, 8, 1, 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 59-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims indicate that the stages do not include polarizer, however, it appears that the embodiments disclosed in the specification do include polarizer (associated at least with the system, although not clearly associated with the individual stages). As any polarizer in the system can be described as identified with a given stage, how applicant intends the language to be read is unclear.

Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the stacked arrangement of the cells.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 58- 64 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunuhata et al 5995185.

Hunuhata teaches a device in guest-host cell are stacked with non-guest host cell (therefore not all of the cells require polarizers). The cells each control the brightness of a color and therefore the luminance and saturation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konuma 5995185 in view of Yeh et al.

Konuma teaches a device in which the liquid crystal rotates to a perpendicular without twisting (it is believed that the untwisted antiparallel orientation will give this result). Lacking from the Konuma reference is the sets of retarders on both sides. Yeh

discloses this for providing a wide viewing angle display, which would have been obvious for that reason.

Claims 70-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konuma in view of Wada et al as applied above, and further in view of Sharpless, US Patent # 3,647,279, Alasjo et al. US Patent # 5,671,211, Reiner et al, US Patent # 4,659,112, and Fakirov et al, US Patent #4,575,470.

Lacking from the disclosure is the bonding of the retarders using solvent welding.

Solvent welding was one of the established method of bonding layers. The three references cited are believed to evidence of this, with the reference Fakirov et al teaching an advantage of the solvent welding as avoiding the problem of reorienting of molecules in a oriented film (col. 1, lines 19-40). The other references show the use of solvent welding in closer applications to the bonding of retarders, with Asashi bonding a layer in a stack including a liquid crystal layer using solvent welding (col. 9, lines 45-67), and with Sharpless et al showing solvent welding used in a liquid crystal device. Therefore, it would have been obvious to use solvent welding to bond the layers of the Konuma as modified above as solvent welding was a well established method and as it avoided the problem of reorienting of molecules.

Claims 90- 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunuhata et al as applied above, and further in view of Sharpless, US Patent

3,647,279, Alasjo et al. US Patent # 5,671,211, Reiner et al, US Patent # 4,659,112, and Fakirov et al, US Patent #4,575,470.

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Therefore, it would have been obvious to use solvent welding to bond the layers of the Konuma as modified above as solvent welding was a well established method and as it avoided the problem of reorienting of molecules.

Allowable Subject Matter

Claims 58-64 are allowed.

Claims 1, 17-18, 38-41, 47-48, 78-81, 98-101 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Reasons for indication of the allowable subject matter- the shared output polarizer (claim 1) and the selective modulation with the retarder stacks (claim17) is the reason for the indication of allowable subject matter.

Election/Restrictions

Applicant's election with traverse of group in Paper No. 17 is acknowledged. The traversal is on the ground(s) that there was no burden. This is not found persuasive because the search of the different areas would require additional time not required for the non-elected groups.

The requirement is still deemed proper and is therefore made FINAL.

Also, please note that claims 42-46 were listed in the wrong group- they should have been in group C, not group A.

Due to some generic claims being allowed, the dependent claims from those claims have been rejoined.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Parker whose telephone number is 703-305-6202. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.

Kenneth A Parker
Primary Examiner
Art Unit 2871

February 9, 2003